



Gulf of Mexico Harmful Algal Bloom Bulletin

18 January 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: January 13, 2005

Conditions: A harmful algal bloom has been identified offshore southwest of Clearwater and west of Bradenton. No impacts at the beach expected through Friday. Reports of discolored water are possible.

A harmful algal bloom has been identified southwest of Cape Sable and north of the lower Keys. Potential impacts to boaters offshore Cape Sable. Very low impacts expected at Key West through Friday.

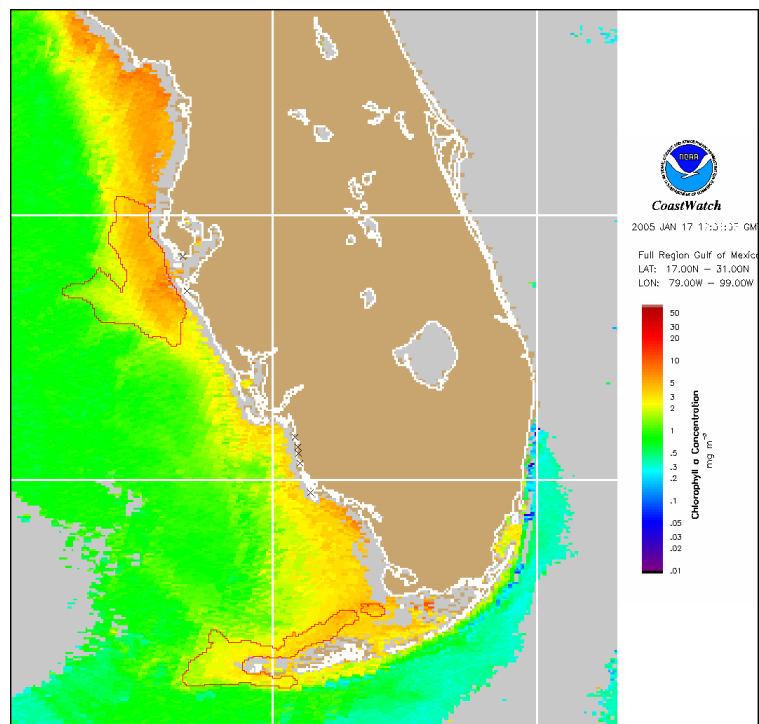
Analysis: A harmful algal bloom has been identified offshore, west of the Tampa Bay area. Chlorophyll levels are $5\text{--}7\mu\text{g/L}$ along the shore from Spring Hill ($28^{\circ}32'\text{N } 82^{\circ}41'\text{W}$) to Sarasota partially due to resuspension, making determination of the eastern extent of the offshore feature difficult. Western extent is at approximately $83^{\circ}23'\text{W}$. The confirmed bloom is offshore to the west of this resuspension event, but upwelling may cause intensification of the bloom and mixing in the eastern part of the bloom. Continued upwelling may bring *Karenia* to shore. Very low concentrations were measured onshore near Bradenton January 10-12. Offshore sampling is recommended. Slight southern transport is possible.

Florida Keys: Samples from January 14 showed medium concentrations of *Karenia brevis* approximately 5 miles southwest of Cape Sable. Nearshore samples from January 10-14 ranged from not present north of Big Pine Key to low north of Key West. Chlorophyll concentrations remain above $4\mu\text{g/L}$ north of Key West and the lower Keys, and are above $5\mu\text{g/L}$ southwest of Cape Romano. The flagged feature west of Key West extending around to the south side of the Keys is due to resuspension, although it may contain some *Karenia* in the north. Weak western transport is possible.

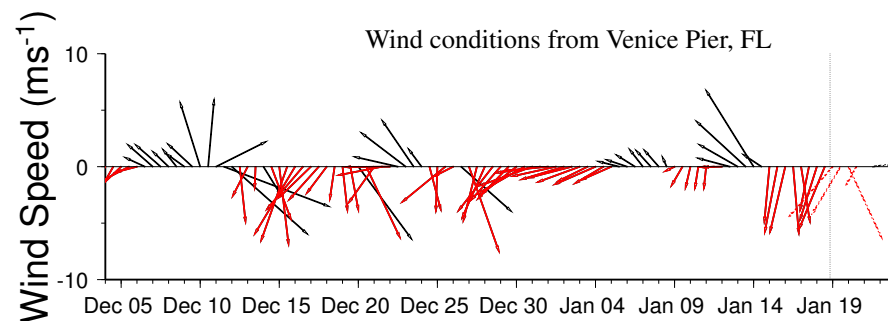
-Stolz, Fenstermacher, Fisher

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1. These data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Distribution for military, or commercial purposes is NOT permitted.
3. There are restrictions on Internet/Web/public posting of these data.
4. Image products may be published in newspapers. Any other publishing arrangements must receive OrbImage approval via the CoastWatch Program.

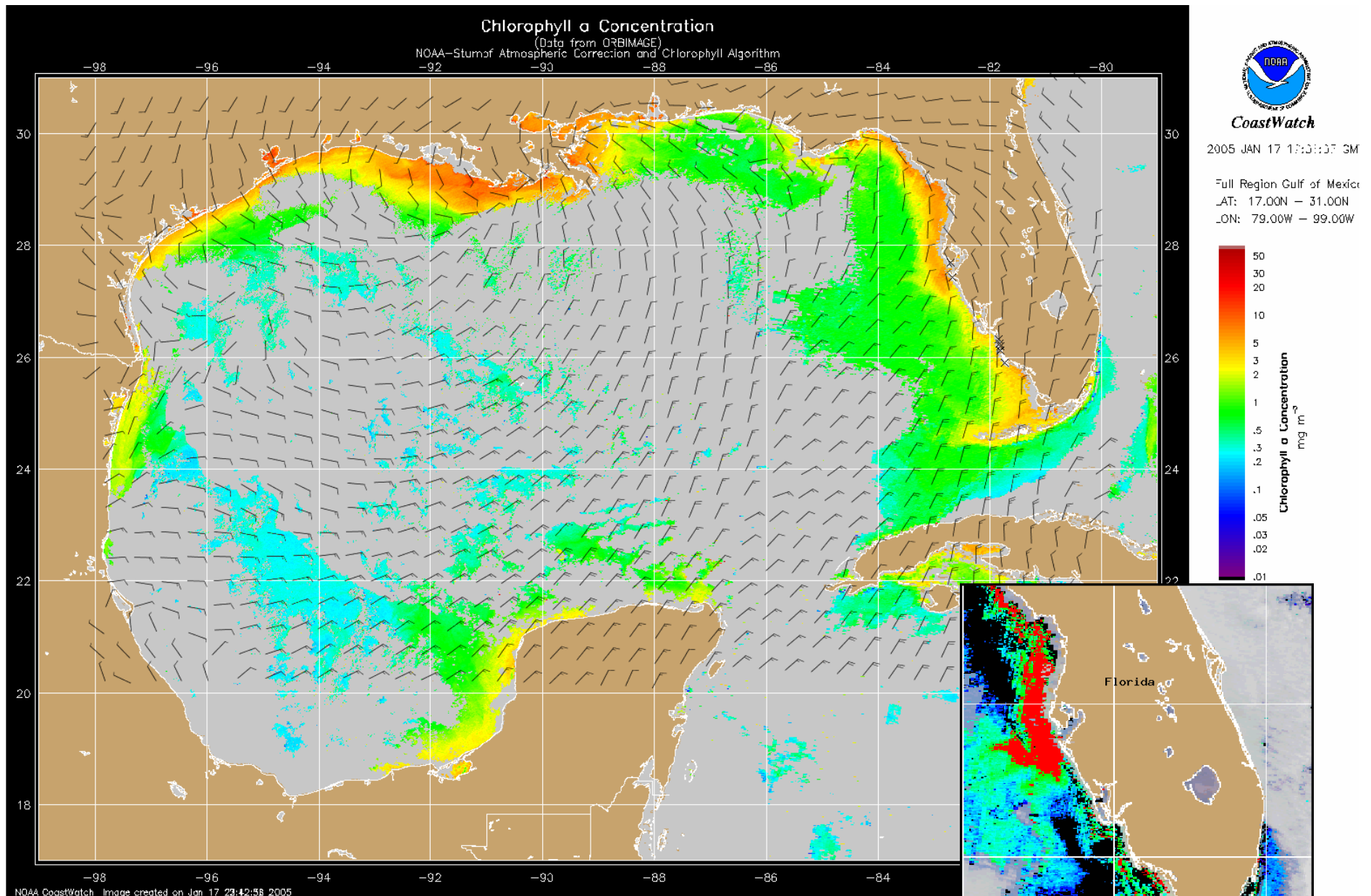


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 6, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

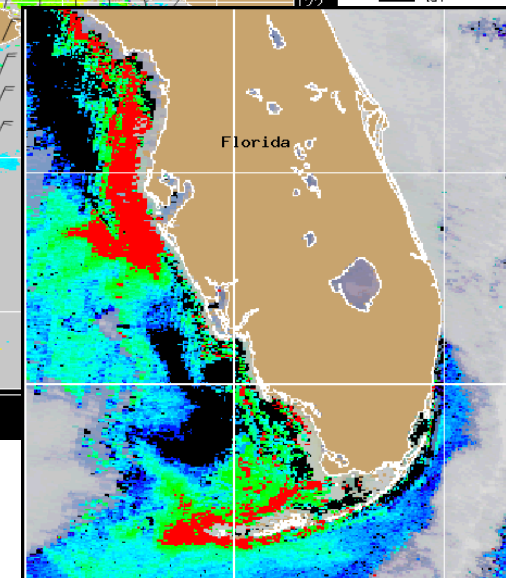


Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Tampa: Northeast winds through tonight at 15-20 knots (7-10 m/s) becoming north Wednesday. Northwest winds Wednesday night through Thursday at 10 knots (5 m/s). Friday winds out of the north, decreasing and becoming easterly on Saturday. **Keys:** North to northeasterly winds through Wednesday, 20-25 knots (10-13 m/s) today decreasing to 15 knots (7 m/s) Wednesday. Northerly winds Wednesday night shifting to the northwest at 10 knots (5 m/s) through Friday.

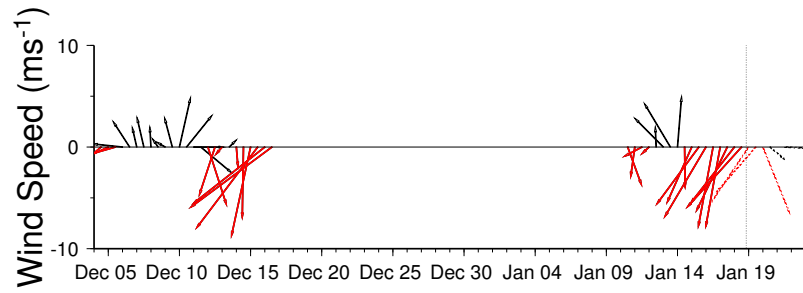


Chlorophyll concentration from satellite and forecast winds for January 19, 2005 18Z with cell concentration sampling data from January 6, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Blooms shown in red (see p. 1 analysis and image for interpretation)

Wind conditions from Egmont Key, FL



Wind conditions from Sand Key, FL

